

Additional chart coverage may be found in CATP2, Catalog of Nautical Charts. SECTOR **11** — CHART INFORMATION

# **SECTOR 11**

#### THE INNER PASSAGE—CAPE CAUTION TO CAPE MARK

**Plan.**—This sector describes the inner passage N from Cape Caution to Ivory Island at the W end of Seaforth Channel; the outer coast N from Herbert Point to Cape Mark at the entrance of Milbanke Sound, and the passages leading from Queen Charlotte Sound to the inner passage.

#### General Remarks

**11.1 Winds—Weather.**—The approaches to Smith Sound and Fitz Hugh Sound are subjected to a heavy swell during W gales. Dense fogs are frequent.

The prevailing wind in North Bentinck Arm in summer is from the SW, the W winds of the ocean blowing across Fitz Hugh Sound being led up the channel as through a funnel following the direction of the different bends. The breeze generally sets in at 1000 and blows fresh until sunset, when it usually falls calm. During winter months, winds up to gale force can be expected from the NE down the valley.

During summer, the prevailing winds are from the N, being funneled down from Burke Channel and following much the same pattern as those in North Bentinck Arm. During winter, periodic gale force winds can be expected from the S. Above Taleomey Narrows there are seldom any winds of strength, no matter how strong they may be outside.

**Tides—Currents.**—The velocity of the tidal currents in Dean Channel, from Rattenbury Point to within 2 miles of Snowquitz Bay, is 1 to 2 knots. Between Snowquitz Bay and Dolmage Point they gradually weaken and almost disappear. In summer, the tidal currents are marked by the effect of the freshets from various rivers and creeks; an overlay of fresh water is noticeable and the current is mostly an ebb. To the S of Carlson Inlet this effect is almost lost and the normal tidal currents remain with the ebb being somewhat the stronger. Dean Channel is free of tide rips and eddies.

The prevailing wind in Dean Channel in the summer is from the SW; it follows the direction of the channel as through a funnel. The breeze usually sets in about 1000 and gradually reaches a maximum in the early afternoon; it continues fresh until sunset, when it usually falls calm. During the winter, winds often reaching gale force can be expected from the N, down the channel.

The tidal currents within Lama Passage are strong in the narrow area lying between the NE end of Campbell Island and Saunders Island. The tidal currents in Seaforth Channel, between Idol Point and Ocean Falls at the head of Cousins Inlet, are variable in direction and weak; they depend to a great extent on the prevailing winds.

The flood tidal currents from N and S meet about midway between Fog Rocks and the E entrance of Lama Passage.

The tidal currents between Edmund Point and Restoration Bay are strong and heavy tide rips occur, especially off Hvidsten Point. Towards Bella Coola, to the N, the tidal currents are weak. In summer, when strong freshets from the various rivers and creeks are in evidence, the tidal currents from Gibraltar Point to Bella Coola are marked; there is a definite overlay of fresh water and the current is mostly all ebb. The flood current sets N through Fitz Hugh Sound. The E tidal current sets in Smith Sound at a velocity of almost 2 knots at springs. The tidal currents in Labouchere Channel, Rivers Inlet, and South Bentinck Arm are weak.

**Regulations.**—A mandatory reporting system for inbound vessels is in effect. Vessels will be contacted by Prince Rupert and are required to report the following information:

- 1. Vessel's position, course, speed, and destination.
- 2. Any defects or deficiencies in cargo, charts, hull, machinery, navigational equipment, or radio equipment.
- 3. A brief description of the main cargo, pollutant cargo, and dangerous cargo, by classification.

Vessels will contact Prince Rupert Traffic on VHF channel 11 when 50 miles from the Oueen Charlotte Islands.

The waters described in this sector lie within a zone of a Vessel Traffic Service (VTS) System. The Prince Rupert Traffic Zone comprises the Canadian waters of British Columbia that are bounded to the S by a line extending between Triangle Island and Cape Caution and to the N by the British Columbia/Alaska border.

CIP	Name	Sector	Remarks
1A	Cape Caution/Triangle Island	Change	
1B	Dugout Rocks	1	See note 1.
1C	Pearl Rocks	1	See note 2.
2	Fog Rocks	1	
3	Walker Island	1	
4	Barba Point	1	
5	Idol Point	1	
6	Freeman Point	1	See note 3.
7	Ditmars Point	1	See note 4.
8	Griffin Point	1	See note 5.
9	Kingcome Point	1	See note 6.
10	Money Point	1	See note 7.
11	Sainty Point	1	See note 8.
12	Pitt Island Light	1	See note 9.
13A	Baker Inlet	Change	
13B	Swede Point	Change	
14A	Lawyer Islands	2	
14B	Genn Islands	2	
15A	Petral Rock	2	

CIP	Name	Sector	Remarks
15B	Greentop Island	2	
15C	Holland Rock	2	
16	Lucy Islands	2	
17	Pillsbury Point	2	
18	Edye Passage	2	
19	Wales Island	Change	
20A	Butterworth Rocks	2	
20B	Seal Rocks	Change	
21	Rose Spit/Seal Rocks	Change	
22	Rose Spit	2	
23	International Boundary/ Dixon Entrance	1	See note 10.
24	Langara Point/Point Cornwallis	Change	
25	Langara Island	1	
26	Tasu Sound	1	See note 11.
27	Cape St. James	1	
28	McInnes Island/Cape St. James	1	
29	Cape Mark/McInnes Island	1	
30	Bonilla Island/Sandspit	1	
31	Lawn Point	1	
32	White Rocks	1	
33	Duckers Islands	1	See note 12.
34	Wilson Rock	1	
35	Triangle Island	Change	

#### **Notes:**

- 1. Vessels bound for FitzHugh Sound shall report ETA at Dugout Rocks.
- 2. Vessels bound for Queen Charlotte Sound via North Passage shall report ETA at Pearl Rocks.
- 3. Northbound vessels shall report ETA at Boat Bluff Light and Ditmars Point. Vessels shall advise if intending to transit Heikish Narrows.
- 4. Southbound vessels shall report ETA at Boat Bluff Light and Freemans Point.
- 5. Northbound vessels shall report which side to Work Island they intend to transit. Southbound vessels shall advise if intending to transit Heikish Narrows.
- 6. Southbound vessels shall report which side of Work Island they intend to transit.
- 7. Vessels bound for Kittimat shall report ETA at Emilia Island Light
- 8. Northbound vessels shall report ETA at Tom Island Light and Pitt Island Light.

- 9. Southbound vessels shall report ETA at Tom Island Light and Sainty Point Light.
- 10. Vessels shall report whether their passage is through Holliday Passage, Oriflamne Passage, or Main Passage when transiting Chatham Sound.
- 11. Vessels shall report at Davidson Point when entering or exiting Tasu Sound.
- 12. Northbound vessels shall report whether route is through Squally Channel or Whale Channel.

Vessels should contact Prince Rupert Traffic when passing each charted calling-in-point (CIP), as follows:

- 1. Sector 1—VHF channel 11.
- 2. Sector 2—VHF channel 71.

**Directions.**—The usual route between Cape Caution and the SE part of Alaska is via the Inner Passage. This passage leads through sheltered waters with only a few areas exposed to the ocean. The strong gales frequently encountered in Queen Charlotte Sound and Hecate Strait are avoided.

The main route of the Inner Passage, commencing from the S, leads through Fitz Hugh Sound, Lama Passage, Seaforth Channel, Milbanke Sound, Finlayson Channel, Tolmie Channel, Princess Royal Channel, Grenville Channel, Arthur Passage, and Malacca Passage into Chatham Sound.

**Caution.**—Movements in the Prince Rupert Traffic Zone may be restricted when the following vessels are underway:

- 1. Vessels carrying dangerous or polluting cargo.
- 2. Vessels considered to be navigating with difficulty.

# Approaches to Smith Sound and Fitz Hugh Sound

11.2 Cape Caution (51°10'N., 127°47'W.) is moderately high and level. The coast in the vicinity of this cape is formed by granite and appears white. A light is shown from a structure standing on the W extremity of the cape.

The approaches to Smith Sound and Fitz Hugh Sound lie between Cape Caution, on the mainland, and Herbert Point, on Calvert Island, 22 miles NNW.

Sea Otter Group, an extensive area of rocks and shoals, lies in the approaches to these sounds between 6 miles and 21 miles offshore. North Passage and South Passage afford safe access to the sounds N and E, respectively, of the Sea Otter Group. Five navigable passages lead from the E side of South Passage to the entrance of Smith Sound. They pass between several islands and numerous dangers.

**Macnicol Point** (51°15′N., 127°47′W.), located 5 miles N of Cape Caution, forms the S entrance point of Smith Sound. Extended Point, located 4 miles N of this point, forms the N entrance point of Smith Sound.

**Kelp Head** (51°21'N., 127°47'W.), located about 2 miles N of Extended Point, forms the SE entrance point of Fitz Hugh Sound. The coast between Extended Point and this head is fronted by numerous islets and rocks.

**Cape Calvert** (51°25′N., 127°54′W.), located 5.5 miles NW of Kelp Head, forms the NW entrance point of Fitz Hugh Sound. This cape marks the S termination of the Cape Range Mountains. These peaks attain an elevation of 602m, about 4.5 miles N. The cape presents a broad face of rocky coast, about 90m high, at the S end of Calvert Island.

Clark Point, marked by a light, forms the SE extremity of Cape Calvert.

Herbert Point is located 7.5 miles NW of the S extremity of Cape Calvert. The shore between is fronted by numerous rocks extending up to about 1 mile seaward.

The land ENE of Cape Caution rises gradually for about 5 miles to **Coast Nipple** (51°12′N., 127°40′W.). Egg Island is a prominent landmark lying between Queen Charlotte Strait and Fitz Hugh Sound. Mark Nipple, an isolated hill, rises 1.3 miles E of Herbert Point and is a useful landmark for vessels approaching Fitz Hugh Sound through North Passage. Entry Cone, which stands 2 miles N of Cape Calvert, is conspicuous and forms a good mark for identifying Fitz Hugh Sound from the S and W. The Sorrow Islands form an excellent mark when vessels are approaching from the NW in thick weather.

11.3 The Sea Otter Group, which lies in the W approaches to Smith Sound and Fitz Hugh Sound, consists of a number of dangerous rocks and shoals. The group is separated from the mainland by South Passage, to the E, and from Calvert Island by North Passage, to the N.

**Virgin Rocks** (51°17′N., 128°12′W.), three in number, are white and lie near the W extremity of the Sea Otter Group. Barugh Shoal, with a depth of 11m, lies about 2 miles NW of the largest of these rocks.

**Hannah Rocks** (51°14'N., 127°58'W.), forming the south-easternmost danger of the Sea Otter Group, has a depth of less than 1.8m. This danger is awash at HW and nearly always breaks. It may be cleared by keeping Egg Island Light bearing less than 075°.

**Silistria Shoal** (51°15'N., 127°56'W.), with a least depth of 8.2m, is the easternmost danger of the Sea Otter Group.

**England Rock** (51°16'N., 127°56'W.), with a depth of less than 1.8m, seldom breaks. New Rocks, which dry 0.6m, lie about 3 miles WNW of this rock.

**Tynemouth Rock** (51°18'N., 128°03'W.) has a depth of less than 1.8m. Shoals, with depths of 8.2m and 11m, lie about 0.3 mile NW and about 1 mile ENE, respectively, of Tynemouth Rock.

**Watch Rock** (51°23'N., 128°06'W.) is black, steep-to, and 11m high. Wigen Shoal, with a depth of 14.6m, and Kent Bank, with a least depth of 24m, lie about 2.3 miles NW and 1.3 miles SSE, respectively, of Watch Rock.

11.4 Pearl Rocks (51°22'N., 128°00'W.) consists of two groups of rocks, above and below-water, lying close together at the NE end of the Sea Otter Group. The tallest rocks of the northwesternmost and southeasternmost groups are 5.8m and 3.1m high, respectively. A rock, which dries 3.1m, lies at the S extremity of the southeasternmost group.

Rankin Shoals, consisting of numerous rocky patches, have a least depth of 8.2m and lie between Watch Rock and Pearl Rocks. A deep channel, 2.5 miles wide, lies S of Pearl Rocks.

**South Passage** (51°15'N., 127°54'W.) leads to Smith Sound and Fitz Hugh Sound from the S. The depths in the passage are good, but irregular.

**North Passage** (51°24'N., 128°03'W.) leads to Smith Sound and Fitz Hugh Sound. The fairway is about 3 miles wide and deep, except for Hedley Patch (51°26'N., 128°03'W.) which has a least depth of 11.9m.

**Caution.**—Although adequate depth of water makes the passage leading between the rocks and shoals of the Sea Otter Group possible, vessels should not attempt to transit this area because navigation is hazardous due to the difficulty in identifying the various dangers.

Vessels using South Passage should pass not less than 0.8 mile or more than 3 miles W of Egg Island. During the fishing season, between May and September, numerous fishing craft may be encountered between Egg Island and Cape Calvert. The heaviest concentration being between the last week of June and the first week of August.

The shore between Cape Caution and Protection Cove, 4 miles N, is fronted by numerous shoals, with depths of less than 5.5m, which extend up to about 0.5 mile seaward. Numerous above-water, drying, and below-water rocks lie on these shoals. Wright Bank, with a least depth of 24m, lies about 3.5 miles WNW of Cape Caution.

**South Iron Rock** (51°13'N., 127°49'W.), which dries 0.3m, is steep-to on its W side and breaks at times. A shoal, with a depth of 4.6m, and a rock, with a depth of less than 1.8m, lie about 0.1 mile SE and 0.1 mile NE, respectively, of South Iron Rock

**North Iron Rock** (51°14'N., 127°49'W.), which dries 3.4m, is usually marked by breakers when not uncovered. A rock, which dries 0.9m, and a shoal, with a depth of 7.3m, lie close N and about 0.1 mile NW, respectively, of it.

Alexandra Passage is entered NW of North Iron Rock.

11.5 Egg Island (51°15'N., 127°50'W.), 84m high, is a prominent landmark. It lies between Queen Charlotte Strait and Fitz Hugh Sound. An islet fronting the E side is separated from the island by a narrow channel. This channel appears as a split in the island itself when seen from N or S. Egg Rocks, which extend up to about 0.5 mile S from the island, are apparently steep-to. A light is shown from a structure standing on the island.

Denny Rock, with a depth of less than 2m, lies about 0.5 mile WSW of Egg Island. This rock, which is steep-to, seldom breaks and is not marked by kelp.

**Table Island** (51°16'N., 127°48'W.), 50m high, is nearly flat but appears to have two hills standing on it when seen from abeam of Cape Caution.

Ann Island, 58m high and wooded, lies close N of Table Island and is separated from it by a narrow channel.

Speedwell Shoal, with a least depth of 11m, lies about 2 miles N of Egg Island Light.

**Cluster Reefs** (51°18'N., 127°47'W.) consist of a number of rocky heads and shoal patches scattered over an extensive area extending about 2 miles NNE from the N end of Table Island. Staunton Shoal, with a least depth of 9.1m, forms the NW side of these reefs.

**Ruby Rocks** (51°18'N., 127°49'W.), two above-water rocks, lie about 2 miles N of Ann Island. They are conspicuous when viewed from the N. Thorndike Shoal, with a depth of 9.1m, lies about 0.8 mile W of these rocks.

**John Rock** (51°19'N., 127°49'W.), which dries 0.6m, lies about 0.3 mile N of Ruby Rocks and foul ground extends up to about 0.2 mile W of it.



Photo convright Mike Mitchell

**Egg Island Light** 

**11.6 False Egg Island** (51°19′N., 127°48′W.) is similar in shape to Egg Island, but smaller. The island lies on the N side of the approach to Smith Sound, about 1.3 miles NE of Ruby Rocks.

**James Rock** (51°20'N., 127°48'W.), with a depth of less than 1.8m, lies close N of False Egg Island and breaks at LW. Another rock, with a depth of less than 1.8m, lies about 0.4 mile WSW of James Rock and also breaks at LW.

Tie Island, 55m high, lies 0.8 mile ESE of False Egg Island and Ada Rock, which dries 2.1m, lies about 0.3 mile S of it.

Brown Island, 49m high, lies 1.5 miles SE of False Egg Island. Foul ground, with several above and below-water rocks, extends NE from the island to the main shore.

**Dugout Rocks** (51°22'N., 127°48'W.), lying about 1 mile NW of Kelp Head, consist of a chain of rocks and shoals. The largest of these rocks is 15m high and stands out boldly against the coast. A light is shown from this chain.

Spur Rocks extend up to 0.5 mile W of Kelp Head and consist of numerous drying, and above and below-water rocks.

Brown Bank, with a least depth of 27m, consists of rock and lies about 2.3 miles SW of Dugout Rocks. A shoal, with a depth of 20.1m, lies about 1 mile SSE of this bank.

**Sorrow Islands** (51°25'N., 127°55'W.) lie within 1 mile S of Calvert Island. These islands are of granite formation and covered with gnarled and stunted trees. They form an excellent landmark when approaching in thick weather from the NW via North Passage. Tide rips occur in the vicinity of Henderson Shoal which lies close SW of these islands.

Upward Rock, 11m high, lies on the E side of a group of rocks located about 1 mile from the shore, 3.3 miles SE of Herbert Point.

Blackney Island, 84m high and wooded, lies 1 mile W of Herbert Point and is connected to Calvert Island by a drying ridge.

Fitz Roy Reef, with a depth of less than 1.8m, lies about 1.5 miles WNW of Blackney Island and is the outermost danger located on the N side of the entrance to North Passage.

#### **Smith Sound**

11.7 The entrance of Smith Sound, lying between Macnicol Point and Extended Point, is partially protected by several islands and reefs, but there is nearly always a moderate swell in the W part, except after a prolonged spell of good weather.

The sound may be entered by Alexandra Passage or Loran Passage, on the S side, and Radar Passage or Irving Passage, on the N side.

Alexandra Passage leads between North Iron Rock and Egg Rocks, lying NW. This passage is deep. Soundings give practically no warning of the approach to dangers and great care is necessary in thick weather.

Loran Passage leads between Egg Island and Table Island. It is deep and free of dangers.

Radar Passage leads between Speedwell Shoal and Ruby Rocks.

Irving Passage leads between John Rock and Ada Rock.

Radar Passage and Irving Passage join to the E of Ruby Rocks and then lead through a common entrance to Smith Sound, passing between Cluster Reefs and Brown Island. The fairway in this common entrance is deep but only 0.2 mile wide in places.

The central part of Smith Sound is divided into two channels by a chain of islands, islets, and rocks. Browning Channel leads S of the chain to Takush Harbor and Smith Inlet. Backney Channel leads N of the chain to Boswell Inlet.

Smith Sound should be navigated with care because its waters are not completely surveyed. The depths in the fairways of the sound are generally over 73m.

Vessels from the S that are entering Smith Sound by way of Alexandra Passage should bring the SE extremity of Table Island ahead bearing 038° and maintain this course until the light on Egg Island is abeam. They should then steer a course with Surf Islets ahead bearing 062°.

When the light on Watcher Islands is abeam, vessels should alter course to 090° in order to pass about 0.3 mile S of Surf Islets. When these islets are abeam, they should steer a midchannel course through Browning Channel. Vessels bound for Boswell Inlet should pass midway between Round Rock and Halliday Island, taking care to avoid the foul ground lying on the N side of the latter. They should then steer a mid-channel course through the E part of Blackney Channel.

Vessels using Radar Passage should keep the N side of Brown Island ahead bearing 064° until the E side of False Egg Island bears 000°. They should then alter course in order to pass about 0.2 mile S of Brown Island.

From S of Brown Island, vessels bound through Blackney Channel should pass about 0.2 mile off Shield Island and about 0.3 mile off the W entrance point of Dsulish Bay. Thereafter, they should steer a mid-channel course.

Loran Passage is the best entrance to Smith Sound under conditions of poor visibility because it is both wide and deep. Vessels from the N should take care to avoid Thorndike Shoal and Speedwell Shoal. A mid-channel course between Egg Island and Table Island should be steered until the SE extremity of the latter bears about 025°. The directions given for Alexandra Passage should then be followed.

Irving Passage can be used in clear weather by vessels from the N. A course with the N side of Brown Island ahead bearing 102° should be steered until the E side of False Egg Island is abeam. The course should then be altered to bring the light on Watcher Islands ahead bearing 129°. When the S extremity of Brown Island bears 090°, the course should then be altered to pass about 0.2 mile off it.

11.8 Takush Harbor (51°17'N., 127°37'W.), entered by way of Browning Channel and Ship Passage, affords the only secure anchorage for vessels in Smith Sound. The depths in the approaches to the harbor are great. The least depth in the approach to the anchorage is 12.8m.

**Nab Patch** (51°18'N., 127°37'W.), with a depth of 6.4m, lies on the E side of the entrance. Fly Basin, the S arm of the harbor, is landlocked. The entrance of this basin is narrow and encumbered with drying and below-water rocks. It can only be used by small craft with local knowledge.

Anchorage can be taken, in a depth of 16.5m, mud, within **Anchor Bight** (51°17'N., 127°38'W.), midway between Abrupt Point and Ship Rock. A shoal, with a depth of 7.3m, lies close E of the anchorage, about 0.1 mile N of the E extremity of Ship Rock.

The channels leading E of **Fish Rocks** (51°17′N., 127°37′W.) and W of and between the Gnarled Islets are

narrow and shoal. They should only be used by small craft with local knowledge.

Smith Inlet is the continuation of Smith Sound to the E. This deep inlet extends about 6 mile E from Ripon Point, the N entrance point, to Quascilla Bay and the entrance of Naysash Inlet. About 11 miles within the entrance, the inlet divides into E and N arms, which continue about 2 miles farther. Above Ripon Point, the inlet is about 0.5 mile wide and its shores consist of high, rocky, and precipitous mountains, which are covered with trees. A survey has been made of the first 7 miles within the entrance, but the remainder has not been fully examined.

**Cape Anne** (51°18'N., 127°23'W.), the E extremity of Greaves Island, is located on the S side of the inlet, about 6 miles above McBride Bay. A conspicuous white cliff stands about 1.5 miles W of this cape. A steep-to rock, which dries 1.2m, lies close E of the cape.

**Quascilla Bay** (51°17'N., 127°23'W.) indents the S shore of Smith Inlet, on the E side of Cape Anne. Several islets lie off the E side of the entrance of this bay. Anchor Cove forms the S part of the bay.

**Ahclakerho Channel** (51°17'N., 127°25'W.), which separates Greaves Island from the mainland to the S, connects Quascilla Bay with Takush Harbor via Broad Reach. It is a tortuous channel, navigable only by boats at HW.

**Wyeclees Lagoon** (51°17'N., 127°21'W.), lying close E of Quascilla Bay, is connected to Smith Inlet by a short passage available only to small craft.

11.9 Naysash Inlet (51°19'N., 127°22'W.) is entered on the N side of Smith Inlet, opposite Cape Anne. Adelaide Point, the S entrance point, has the appearance of a cone and is thickly wooded. A prominent landslide is located on the N side of the entrance. The inlet has a least width of 0.1 mile and extends for 9 miles. It is navigable for only about 3 miles within the entrance. Hickey Cove lies on the E side of the inlet, about 0.8 mile from the entrance. A conspicuous white cliff rises on the N side of Smith Inlet, 1.5 miles E of Adelaide Point.

Margaret Bay (51°20'N., 127°30'W.) indents the E side of Smith Sound, between the entrances of Smith Inlet and Boswell Inlet. The settlement at this bay is reported to be abandoned.

**Frank Rock** (51°19'N., 127°33'W.), 0.9m high, lies in the approaches to Margaret Bay. Foul ground, with rocks covered by depths of less than 1.8m, fronts the W side of this rock and a shoal, with a depth of 11m, lies about 0.1 mile E of it. Vessels entering the bay can pass on either side of the rock.

**Camosun Rock** (51°20'N., 127°31'W.), with a depth of 3.7m, lies nearly in mid-channel in the entrance to Margaret Bay. A wooded islet, 44m high, lies close to the N shore, at the head of the bay. A group of rocks, which dry up to 3.3m, lie close SW of this islet. With the exception of these rocks and Camosun Rock, the bay is clear of dangers.

**Boswell Inlet** (51°21'N., 127°30'W.) is entered between Barb Point and Napier Island. It extends ENE for about 8 miles. The fairway channel is deep and clear of dangers, except for a rock, which dries 1.2m, lying about 0.2 mile off the N shore, 1 mile E of Barb Point. A survey has been made of the first 5 miles above the entrance, but the remainder is unsurveyed.

## **Fitz Hugh Sound**

11.10 Fitz Hugh Sound leads from Queen Charlotte Sound to the S end of Fisher Channel and is part of the inner passage. The S entrance of the sound lies between Kelp Head and Cape Calvert, 5.5 miles NW. The shores are mainly bold, rocky, and backed by steep, wooded slopes. Elevations of over 610m stand on both sides of the sound. About 11 miles N of Cape Calvert, the sound is constricted to a width of about 1.5 miles by Addenbroke Island (51°36'N., 127°51'W.).

Rivers Inlet and Burke Channel indent the E side of the sound close within the entrance and about 30 miles N of Cape Calvert, respectively. Kwakshua Channel, Hakai Passage, and Nalau Passage lead from the W side of the sound to the open sea. They are entered from the E about 14, 20, and 23 miles N, respectively, of Cape Calvert.

#### **Rivers Inlet**

11.11 Rivers Inlet lies on the E side of the entrance of Fitz Hugh Sound. It is entered between Kelp Head and Addenbroke Point, 9.5 miles N. The main channel leads S of a group of islands lying in the entrance. It is deep and clear of dangers. Darby Channel, lying close N of this group, leads to the inner part of Rivers Inlet, but it is very narrow in places.

Several channels and sheltered anchorages are located within the group of islands lying in the entrance. These channels and anchorages are encumbered with rocks and shoals and should only be used by small craft with local knowledge. Included among these are Klaquaek Channel, Magee Channel, and Schooner Retreat.

Rivers Inlet extends about 25 miles NE and has an average width of 1.5 miles between its bold shores. Moses Inlet is a N extension of the main channel. Hardy Inlet branches W from Moses Inlet. The Wannock River empties into the head of Rivers Inlet.

Several former canneries are situated on the shores of Rivers Inlet, but they are now only used to stow fishing gear. They are all fronted by wharves or floats with good depths alongside and can accommodate local fishing vessels and coasters which frequent this area.

**Ironside Island** (51°28'N., 127°45'W.), 72m high, is separated from Sea Bluff, the NW extremity of Joachim Island, by Safe Entrance, a channel which leads to Schooner Retreat. Grey Islets lie close off the SE side of Ironside Island, on the NW side of Safe Entrance. The fairway channel leading over the bar between Grey Islets and Sea Bluff is 137m wide and has a least depth of 11.9m.

**Open Bight** (51°22'N., 127°46'W.), lying on the E side of Cranstown Point, affords temporary anchorage in moderate weather, although it is exposed N and there is usually a swell. The best anchorage berth lies in depths of 18 to 24m about 0.3 mile ESE of Cranstown Point.

**11.12 Sharbau Island** (51°25'N., 127°42'W.) is the westernmost island of a group which lies close off the S side of Rivers Inlet. A steep-to rock, with a depth of 4.6m, lies about 0.6 mile NW of this island.

Major Brown Rock, lying about 0.6 mile NNE of Sharbau Island, is a rocky islet composed of white limestone. A light is shown from a structure standing on its N side.

A rock, with a least depth of 4.6m, and Maud Rock, which dries 1.2m, lie about 0.8 mile WSW and 3 miles NE, respectively, of Major Brown Rock.

**Goose Bay** (51°24'N., 127°40'W.) is entered 2 miles E of Major Brown Rock. Numerous islands, islets, and reefs lie in the entrance to this bay, between Sharbau Island and the mainland. Deep channels lead into the bay from the N but local knowledge is necessary.

**Duncanby Landing** (51°24'N., 127°39'W.) is located on the E side of the entrance to Goose Bay. It is fronted by a float with a depth of 4.3m alongside.

**Draney Inlet** (51°28'N., 127°32'W.) is entered through Draney Narrows, on the SE side of Rivers Inlet. This inlet, which is unsurveyed beyond Draney Narrows, can be entered only at slack water. A rock lies in the middle of the W entrance of the narrows and has a least depth of 4.6m. Deep depths are found all around this rock. The tidal rapids in the narrows attain a velocity of 8 to 10 knots.

**Taylor Bay** (51°30'N., 127°36'W.) and **Hemasila Inlet** (51°32'N., 127°35'W.) indent the E side of Walbran island.

**Wadhams** (51°31'N., 127°31'W.), a settlement, stands on the SE side of Rivers Inlet and is the site of a former cannery now used to store fishing gear.

**Good Hope** (51°34'N., 127°30'W.), another former cannery fronted by a wharf, is situated 3.5 miles N of Wadhams.

**Darby Channel** (51°31'N., 127°40'W.) forms the W entrance of Rivers Inlet. This navigable channel, used by coastal vessels, varies in width from 1.5 miles at the entrance to only 115m at the narrows, off Pendleton Island. There are depths of over 27m in the fairway, but several dangers lie within the channel and along the shores. Local knowledge is required.

**11.13 Pendleton Island** (51°31'N., 127°39'W.) partially obstructs Darby Channel, 1 mile E of Fleming Point. A rock, which dries, lies in mid-channel close off the W end of this island and is marked by a beacon. Between Pendleton Island and McLeod Point, 4 miles NE, the fairway is deep and clear.

**Pierce Bay** (51°32'N., 127°45'W.), lying on the N side of the entrance to Darby Channel, is encumbered with islets and rocks, but a deep channel leads to its head. This bay is exposed and affords little shelter.

**Provincial** (51°33'N., 127°37'W.), situated on the W side of Darby Channel, is the site of an abandoned cannery.

**Beaver** (51°33'N., 127°36'W.), formerly a cannery, is situated at the head of a small bay on the E side of Darby Channel. It is now a fisherman's service facility.

**Dawsons Landing** (51°35'N., 127°35'W.) is situated on the W side of Darby Channel, opposite Bickle Pass. This settlement is fronted by a wharf, 12m long, with a least depth of 4.6m alongside. There is also a fisheries float, 18m long, and several pontoons with berths for yachts.

**Rivers Inlet** (51°41'N., 127°16'W.), a settlement, is situated at the head of an inlet and at the mouth of the Wannock River. It is fronted by a wharf that can accommodate small vessels.



Photos copyright Chris Mills

## Addenbroke Island Light (new concrete tower—bottom right)

**Moses Inlet** (51°40'N., 127°27'W.), bound by steep-to shores, is deep except for Nelson Narrows. Mountains, over 610m high, rise on both sides of this inlet and the Clyak River flows into the head.

**Nelson Narrows** (51°46′N., 127°25′W.), encumbered with drying rocks, requires local knowledge for making a safe passage.

11.14 Safety Cove (51°32'N., 127°55'W.) indents the W side of Fitz Hugh Sound, 6 miles N of Clark Point. Two islets lying close S of North Point, the N entrance point, are useful in identifying the entrance, especially from the N. A conspicuous landslide is located on the S side of the entrance. The shores of the cove, except near the head, are rocky, steep-to, and rise up to heights of 305m. A conspicuous conical peak stands near the head of the cove.

Anchorage can be taken in a depth of 27m, mud, in the middle of the cove. During SE or SW gales, strong gusts blow through the valley at the head of the cove.

**Philip Inlet** (51°33'N., 127°47'W.), indenting the E side of Fitz Hugh Sound opposite Safety Cove, is available to small craft with local knowledge.

**Convoy Passage** (51°35'N., 127°48'W.) leads from Fitz Hugh Sound to Fish Egg Inlet. Neither the passage nor the inlet have been surveyed. Several drying rocks lie in the S entrance of the passage.

**Fifer Bay** (51°36'N., 127°49'W.) lies on the E side of the sound. Its entrance is restricted to a width of only about 0.1

mile by an area of foul ground extending from the S entrance point. The depths in the fairway and within the bay are uneven. There is a least depth of 1m in the fairway.

Anchorage can be taken by small vessels in a depth of 20m about 0.2 mile E of the islet lying close N of the S entrance point.

**Addenbroke Island** (51°36'N., 127°51'W.) is the westernmost island of a group fronting the E side of Fitz Hugh Sound. A light is shown from the W extremity of this island.

**Kwakume Inlet** (51°42'N., 127°53'W.), lying on the E side of the sound, has uneven depths in its approach and the entrance is obstructed by a rock, awash. The inlet should only be used by small craft with local knowledge. A light is shown from the S entrance point.

**Kelpie Point** (51°44′N., 128°00′W.), located on the W side of the sound, forms the SE entrance point of Hakai Passage and is marked by a light. The passage leads W to the open sea.

11.15 Namu Harbor (51°52'N., 127°54'W.), lying on the E side of Fitz Hugh Sound, is the site of the fishing settlement of Namu. The facilities here are only available during the fishing season from March through September. The former cannery is now a freezer plant and is fronted by a wharf. The harbor ca be approached from the S through Morehouse Passage. This passage is deep and unencumbered. It leads between Lapwing Island (51°51'N., 127°53'W.) and Kiwash Island (51°52'N., 127°53'W.). Cloverleaf Passage leads into the harbor from close N of Kiwash Island.

**Whirlwind Bay** (51°52'N., 127°52'W.) is formed at the mouth of an inlet lying close N of Namu. Kiwash Island, marked by a light, lies in the middle of the entrance to the harbor.

Anchorage can be taken by small vessels in depths of 20 to 22m within Whirlwind Bay during the spring and summer. Vessels can anchor in depths of 42 to 48m in the middle of Namu Harbor, about 0.3 mile E of Kiwash Island.

**Caution.**—Furious gusts of wind blow from the mountains in the vicinity of Namu Harbor during the autumn and winter. Therefore, anchoring within Whirlwind Bay is not recommended.

#### **Burke Channel**

**11.16 Burke Channel** (05°00'N., 127°40'W.) leads for about 55 miles NE from the E side of Fitz Hugh Sound to Bella Coola, at the head of North Bentinck Arm. The channel, which is deep in the center, lies between high, precipitous, and snow-capped mountains. The sides of these mountains are covered with stunted pine trees.

**Windsor Cove** (51°56'N., 127°53'W.) provides temporary anchorage in a depth of 29m, but with little shelter.

The first reach of Burke Channel trends ENE for about 8 miles. It is about 1 mile wide at first, but narrows to about 0.8 mile a few miles within the entrance.

**Hvidsten Point** (51°57'N., 127°45'W.) is located on the S side of this first reach. Haaksvold Point, marked by a light, is located on the N side of the first reach where the channel turns sharply N.

**Restoration Bay** (52°01'N., 127°39'W.) lies on the E side of the channel under a high, conical mountain. The depths in the bay shoal gradually from 73m, about 0.5 mile off the sandy beach at the head, to 5.5m close inshore.

**Kelkpa Point** (52°07'N., 127°36'W.), from which a light is shown, is located 6.5 miles NNE of Restoration Bay.

Mapalaklenk Point (52°10'N., 127°31'W.), located on the E side of the channel, is the SW entrance point of Kwatna Inlet. Odegaard Rocks, which dry 3.4m and 3.7m, lie about 0.1 mile NW of this point. These rocks are the only dangers lying in Burke Channel. This channel, to the N of the point, skirts the base of a conspicuous, bare, and stony mountain rising on the S shore.

**Kwatna Inlet** (52°05'N., 127°30'W.) is entered between Mapalaklenk Point and Cathedral Point, 3 miles NE. This inlet trends S for 4 miles to Kwatna Bay, then W and S for about 8 miles to a drying flat at its head. The head is separated from Restoration Bay by a narrow neck of land, about 0.8 mile wide. The inlet is clear of dangers and deep throughout.

Anchorage can be taken in a depth of 27m, mud and sand, about 0.3 mile from the edge of the drying flat.

11.17 Kwatna Bay (52°06'N., 127°24'W.) indents the E shore of Kwatna Inlet for about 3 miles. Kwatna Rocks, two in number, lie close within the entrance of this bay. The N rock is 0.6m high and the S rock is 7.6m high. The navigable channel lies N of them. Two rocks, which dry 0.3m and 2.7m, lie about 0.3 mile SE of Kwatna Rocks. Another rock, with a depth of less than 1.8m, lies close S of the highest of the Kwatna Rocks. An extensive steep-to mudflat, through which the Kwatna

River flows, fronts the shore at the head of the bay. An island lies in the middle of this mudflat.

Anchorage can be taken, in a depth of 58m, mud, about 0.2 mile from the edge of the drying mud flat. This berth should be approached with caution.

**Labouchere Channel** (52°25′N., 127°13′W.), deep and unencumbered, is entered on the N side of Burke Channel between **Mesachie Nose** (52°21′N., 127°10′W.), a headland, and Labouchere Point, 1.3 miles NW. This channel trends tortuously for about 7 miles between high, wooded mountains to Dean Channel. Deas Point, marked by a light, is located about 2.5 miles within the S entrance.

Labouchere Channel is usually calm during the summer; however, very strong N and NE winds may be felt in the winter.

Burke Channel leads E for about 5 miles from the S entrance of Labouchere Channel to **Menzies Point** (52°19′N., 127°01′W.), where it divides into North and South Bentinck Arms. The former extending ENE and the latter SE.

11.18 North Bentinck Arm (52°21'N., 126°55'W.) is entered between Loiyentsi Point, located 2 miles NE of Menzies Point, and Tallheo Point, 1.5 miles SE. It extends about 8 miles ENE and terminates at a sandy mudflat, formed by deposits from the Bella Coola River. This river is of considerable size and flows into the SE part of Bella Coola anchorage. The water in the river is quite fresh and at LW is suitable for drinking. The arm is about 1.3 miles wide at its head.

**Flagpole Point** (52°21'N., 126°56'W.), marked by a light, is located on the S side of North Bentinck Arm and Sutlej Point, also marked by a light, is located about 5 miles ENE of it.

**Custom House Point** (52°23'N., 126°50'W.) is located on the N side of the arm.

**Bella Coola** (53°23'N., 126°46'W.), a settlement, stands on the S shore of the inlet, about 0.8 mile inland from the head of North Bentinck Arm.

A rock breakwater extends 160m NNE from close E of Sutlej Point and a light is shown from its outer end. A public wharf extends 92m NNE from a point located close E of the breakwater. It has depths of 6.7m alongside the W face and 3m alongside the E face. A turning dolphin lies close N of this wharf. There are also several pontoons situated close E of the wharf.

**Anchorage.**—Anchorage can be obtained off the cannery and close to the mudflat lying at the mouth of the Bella Coola River. The utmost care must be taken because the bank is very steep-to with depths decreasing from 33 to 1.8m over a distance of 65m. There is no satisfactory anchorage for large vessels near the head of North Bentinck Arm. Small vessels can obtain anchorage in depths of 44 to 49m about 0.1 mile N of the head of the wharf. Shelter is afforded during the summer off **Tallheo Point** (52°23'N., 126°50'W.).

**11.19 South Bentinck Arm** (52°10'N., 126°50'W.) branches SE for 24 miles. It is about 1 mile wide and backed by high land on both sides. Ice forms in the S part of this arm.

**Bensins Island** (52°13'N., 126°55'W.), 151m high, lies close off the E shore of the arm. Larso Bay indents the E shore of the arm, about 3 miles SE of this island. A shoal, with a depth of

7.3m, lies close to the W shore of the arm and about 3 miles SE of Larso Bay.

The **Noeick River** (52°03'N., 126°40'W.) flows into the E side of the arm. A steep-to flat lying at the mouth of the river fronts the E shore. It extends up to 0.5 mile seaward in places and fills the bay. A logging camp is situated N of the river. It is fronted by a float and several conspicuous fuel tanks stand in the vicinity.

**Taleomey Narrows** (52°01'N., 126°41'W.) lies off the mouth of the Taleomey River. The width of the arm at the narrows is reduced to 0.1 mile between a drying flat lying off the river mouth and the W shore. There is a least depth of 22m in midchannel.

Bentinck Narrows lies about 1.5 miles S of Taleomey Narrows. The width of the arm at this narrows is reduced to 90m between the shore and the edge of a drying flat. The flat fronts the mouths of two rivers that flow into the W side of the arm. There is a least depth of 16.5m in mid-channel.

The arm broadens and deepens to a depth of 106m above Bentinck Narrows. It then extends about 1.3 miles to the head, the shore of which is fronted by a steep-to drying flat.

Taleomey Narrows and Bentinck Narrows should only be used by vessels with local knowledge.

Sheltered anchorage can be taken in a depth of 60m between Taleomey Narrows and Bentinck Narrows

#### **Fisher Channel**

11.20 Fisher Channel is the continuation of Fitz Hugh Sound that leads N from the entrance of Burke Channel. The channel is entered between Walker Point and DeCosmos Point, 2.5 miles NW. It leads to Lama Passage, Gunboat Passage, and Johnson Channel on the W side; to Evans Inlet and Port John on the E side; and to Cousins Inlet and Dean Channel to the N.

Lama Passage is part of the main route of the Inner Passage. Johnson Channel and Gunboat Passage are alternative routes connecting with the main Inner Passage.

Walker Point is the SW extremity of Humchitt Island. This island is the largest of several lying close off the SW extremity of King Island. A shoal, with a depth of 11.9m, lies about 0.3 mile W of Walker Point.

Temporary anchorage can be taken in depths of 26 to 46m between 0.2 mile and 0.4 mile NW of Humchitt Island. The depths in this vicinity are very uneven.

**Fog Rocks** (51°58'N., 127°55'W.) lie on the E side of Fisher Channel, about 3 miles N of Walker Point. They consist of six flat, above-water rocks. Several small, black rocks, which dry, lie close off the southernmost rock. Fog Rocks can be passed on either side, but the preferred fairway leads about 0.5 mile W. A light is shown from the largest rock of the group.

**The Trap** (52°02'N., 127°57'W.), lying on the W side of the channel, is a constricted passage formed by Clayton Island, on the E side, and Hunter Island, on the W. Vessels without local knowledge should avoid this passage.

Anchorage can be taken in a depth of 29m close off the head of Evans Inlet A rock, which dries 3.7m, lies close offshore on the E side of this anchorage.

#### **Cousins Inlet**

**11.21** Cousins Inlet, the N continuation of Fisher Channel, extends about 5.5 miles NNE between high hills to **Coolidge Point** (52°21'N., 127°43'W.). It then turns sharply and continues about 1 mile E to Ocean Falls. Coolidge Point is marked by a light.

**Boscowitz Point** (52°16'N., 127°47'W.), the W entrance point of Cousins Inlet, is steep-to and conspicuous.

Wallace Bay indents the E side of Cousins Inlet, about 2 miles NE of Boscowitz Point.

**Guns Rock** (52°18'N., 127°45'W.) lies in the N portion of the bay and is not marked by kelp.

Anchorage can be taken in a depth of 40m, mud, within Wallace Bay. This anchorage is generally used by vessels arriving at Ocean Falls.

Wearing Point, located 2 miles NNE of Boscowitz Point, is precipitous, marked by a light, and backed by a high hill which is conspicuous from the S. A shoal, with a depth of 7.6m, lies about 0.5 mile SSW of the point.

**Caution.**—A magnetic anomaly of 2° to 3° is reported to exist between Boscowitz Point and Wearing Point.

11.22 Ocean Falls (52°21'N., 127°41'W.) (World Port Index No. 18900) is situated at the head of Cousins Inlet, about 300 miles NW of Vancouver. The port has anchoring and berthing facilities for ocean-going vessels. The town, standing at the foot of high and wooded hills, is picturesque with the buildings mainly painted white and extending up the hillsides. The tall chimney of a pulp mill and two radio masts in town are conspicuous.

Fisher Channel forms the S approach to Cousins Inlet and Ocean Falls. The principal approach from Milbanke Sound is through Seaforth, Return and Johnson channels.

The tides rise 4.8 to 5.5m at springs and about 3.6m at neaps. The S and W approaches have depths of 46m in the fairway. The harbor has a similar depth. Vessels of up to 183m in length and 9.4m draft can be accommodated.

It was reported that since the pulp mill was closed, no commercial vessels have entered the port and some of the docks are in need of repair.

Pilotage is compulsory. The pilot will remain aboard during the vessels stay in the port. Requests for pilots should be sent to Vancouver or Victoria through coast radio station VAK.

Anchorage can be obtained in depths of 37 to 46m within the port, E of Coolidge Point.

**Caution.**—Booming grounds front the N and S shores of Cousins Inlet. They extend up to about 120m offshore in places.

Winds from Link Lake to the E are occasionally troublesome for vessels anchored in the harbor. Vessels usually move to the anchorage in Wallace Bay.

#### **Dean Channel**

**11.23** Dean Channel, the NE continuation of Fisher Channel, extends about 52 miles NE from **Rattenbury Point** (52°15′N., 127°46′W.). The channel is about 1 mile wide and lies between a number of precipitous mountains that are partially wooded and usually snow-capped. The channel is deep and the shores are

generally steep-to. Cascade Inlet branches NW about 17 miles NE of Rattenbury Point and Labouchere Channel, 6 miles farther NE, branches SE and connects with Burke Channel. Dean Channel trends about 20 miles NNE from its junction with Labouchere Channel. It then extends about 9 miles NNW and terminates in low, marshy land.

**Jenny Inlet** (52°15′N., 127°37′W.) is entered on the S side of Dean Channel between Neavold Point, located 4.3 miles ENE of Rattenbury Point, and Fosbak Point, 1.5 miles E. This inlet, which is deep, extends SSE for about 3 miles and terminates in drying banks at the mouths of several streams.

**Elcho Harbor** (52°23'N., 127°30'W.) indents the NW shore of Dean Channel and extends NW for about 2.5 miles. It terminates in a flat over which Elcho Creek flows.

Anchorage can be obtained in depths of 29 to 35m, mud, throughout the length of the harbor. A cairn, 13m high, stands on the NW side of Dean Channel, about 0.5 mile ENE of Elcho Point, the E entrance point of the harbor. A beacon stands on Hokonson Point, 1.5 miles S of Elcho Point.

**Cape McKay** (52°24'N., 127°25'W.), 277m high, is the SW entrance point of Cascade Inlet. McKay Bay lies on the SW side of this cape. A beacon stands on Fougner Point, 1.8 miles E of the cape.

Cascade Inlet is entered between Cape McKay and Cascade Bluff, to the NE. This inlet is so named because of the many waterfalls on its NE side. The shores are precipitous and steepto. The inlet is clear of dangers and deep as far as its head. A steep-to mud and grass flat lies at the head off which the depths are too deep for anchoring.

**Eucott Bay** (52°27'N., 127°19'W.) is a small indentation suitable for small craft indenting the N shore. Labouchere Channel is entered on the S side of Dean Channel, between **Edward Point** (52°26'N., 127°16'W.), marked by a light, and Ram Bluff, 1.5 miles E.

**11.24 Nascall Bay** (52°30'N., 127°16'W.) is a small indentation in the W shore of Dean Channel.

Nascall Rocks, two in number, lie off the E shore of Dean Channel, close NE of this bay. The larger and southernmost rock is 6.1m high. The smaller rock dries 0.6m. The two rocks, 0.1 mile apart, are connected by a drying reef.

**Nascall Island** (52°31'N., 127°14'W.), 56m high and wooded, lies close to the E shore of the channel, about 0.3 mile N of Nascall Rocks. The channel leading between the island and the E shore has a depth of 5.5m, but passage should be attempted only by small craft with local knowledge.

**Carlson Inlet** (52°35'N., 127°14'W.), lying on the NW side of Dean Channel, extends 1.5 miles NW. It is deep and has an average width of 0.2 mile.

**Skowquiltz Bay** (52°36'N., 127°10'W.) lies on the same side of the channel, about 2.5 miles NE of Carlson Inlet. An extensive mudflat lies at the head of the bay through which the Skowquiltz River flows. Some old piles and the ruins of a wharf front the edge of this flat.

**Sylvester Point** (52°39'N., 127°02'W.) and Wattie Point, on the opposite shore, are bold and form the S entrance points of bights lying on either side of the channel. These bights increase the width of the channel in this vicinity to about 2 miles.

Purcell Rock, which dries 0.9m, lies about 1 mile NE of Sylvester Point and fronts the westernmost bight.

Engerbrightson Point, the N entrance point of this bight, is located 2 miles NE of Sylvester Point. Ironbound Island, 21m high and wooded, lies about 0.2 mile S of Engerbrightson Point. A reef, which dries 3m, fronts the N side of Ironbound Island. The westernmost bight is too deep for anchorage and should be given a wide berth to avoid Purcell Rock.

**Raphoe Point** (52°43'N., 126°57'W.), off which Dean Channel turns N, is conspicuous and is located on the W side of the channel, 3 miles NE of Engerbrightson Point. Two landslides and a large boulder, all conspicuous, are located on the W side of the channel, 3 miles N of the point.

11.25 Kimsquit Narrows (52°49'N., 126°58'W.) is 0.3 mile wide. It lies between the flat at the mouth of the Dean River, which flows into the E side through an extensive valley, and a drying spit of grass and stones, extending from the W side at the mouth of Manitoo Creek. This latter spit is steep-to and presents no danger. The depths in the fairway of the narrows exceed 73m. The ruins of a cannery and a wharf are situated on the W shore, close N of the narrows.

**Kimsquit Bay** (52°50'N., 126°59'W.) lies on the E side above the narrows. It is deep, but temporary anchorage can be obtained in a depth of 55m about 0.1 mile from the head.

Dean Channel trends about 3.5 miles NW from Kimsquit Bay to a steep-to, drying flat at its head. The Kimsquit River flows over this drying flat. The ruins of an old logging pier extend over the flat, close W of the river mouth.

**Caution.**—The head of Dean Channel, as far S as Kimsquit Narrows and sometimes beyond, frequently becomes icebound for lengthy periods during the winter.

## Lama Passage

11.26 Lama Passage (52°05'N., 128°00'W.) leads W for 6 miles between Hunter Island and the S coast of Denny Island. It then leads N for 6 miles between Campbell Island and the W coast of Denny Island. This passage is the main route connecting Fisher Channel with Seaforth Channel and Milbanke Sound. Its E entrance (52°04'N., 127°57'W.), on the W side of Fisher Channel, can be identified by a conical mountain, 303m high, rising at the NE end of Hunter Island. The passage is deep throughout and there are no known dangers in the fairway.

**Pointer Island** (52°04'N., 127°57'W.), 40m high, lies on the S side of the entrance of Lama Passage. The island is marked by a light and is prominent.

Walbran Rock, with a depth of less than 1.8m, lies about 0.4 mile SE of Pointer Island. A buoy is moored close off the N side of this rock.

White Point (52°04'N., 127°58'W.), marked by a light, is located on the N side of Lama Passage. The shore in the vicinity of this point should not be approached within about 200m

Serpent Point is located on the S side of the passage, about 1 mile W of White Point. A light is shown from a structure standing on the rocks fronting the N side of this point.

**Cliff Bluff** (52°05'N., 128°02'W.) lies on the N side of the passage, 1.8 miles W of Serpent Point.



Photo copyright Mike Mitchell

## **Pointer Island Light**

Harbormaster Point, located 2.3 miles WSW of Serpent Point, forms the E entrance point of Cooper Inlet and is marked by a light.

**11.27 Cooper Inlet** (52°04'N., 128°04'W.) indents the S shore of Lama Passage. This inlet is deep and contains several coves off which lie many islets and rocks.

**Hogan Rock** (52°04'N., 128°05'W.), which dries 5.2m, lies within Cooper Inlet.

Anchorage by vessels up to 75m in length can be taken in a depth of 24m about 0.2 mile N of Hogan Rock or in a depth of 20m about 0.5 mile ESE of the rock.

**Twilight Point** (52°06'N., 128°06'W.) is located on the N side of Lama Passage, about 2.5 miles NW of Harbormaster Point.

**Walker Island** (52°06'N., 128°07'W.), marked by a light, lies close off the SW end of Denny Island and is the turning point into the N part of Lama Passage.

Alert Island, 46m high, lies close offshore on the E side of the passage, about 1 mile N of the island. Alarm Cove, encumbered by rocks, is entered close N of Alert Island.

Napier Point, marked by a light, is located on the W side of the passage, about 2 miles NNW of Walker Point. The passage narrows in the vicinity of this point to a width of about 0.3 mile.

**McLoughlin Bay** (52°08'N., 128°08'W.), lying close NNW of Napier Point, is entered on the W side of Lama Passage. The shore of the bay is fronted by a beach but it is fringed by rocks in places. A rock, with a depth of 11.9m, lies in the middle of the bay, about 0.2 mile offshore.

A hill, 69m high, stands 0.2 mile S of the beach and forms a useful mark when approaching the anchorage. It is bare and rocky with some cleared ground at the foot.

Anchorage can be taken in a depth of 20m, mud, about 0.1 mile off the middle of the beach with the W extremity of Saunders Island (52°11'N., 128°06'W.) bearing 021°.

**Story Point** (52°09'N., 128°08'W.), marked by a light, is located on the E side of the passage, about 1 mile N of Napier Point. Several small islets, connected by a drying ridge, lie close off the coast of Denny Island, about 1 mile NE of Story Point.

11.28 New Bella Bella (52°10'N., 128°09'W.) (World Port Index No. 18915), an Indian village with port facilities, stands on the W side of Lama Passage. A public wharf, with a berthing face 61m long and a least depth of 7.6m alongside, fronts the village and is used by coastal supply vessels.

Anchorage can be obtained in a depth of 27m about 0.6 mile ENE of the wharf at New Bella Bella.

Saunders Island, 40m high, lies at the N end of Lama Passage, about 2 miles NNE of Story Point. An area of foul ground extends up to about 0.3 mile SW from the island and is marked by a lighted buoy. This island is the westernmost island of a group lying off the NW end of Denny Island.

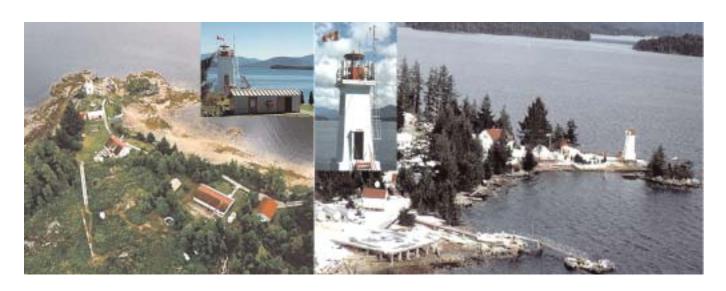
The N end of Lama Passage lies between Campbell Island and the NW shore of Saunders Island. The passage is reduced in this vicinity to a width of 0.2 mile, but there is a least depth in the fairway of 37m. The tidal current is strong and vessels should keep in mid-channel.

**Dryad Point** (52°11'N., 128°09'W.), marked by a light, is located 0.5 mile N of Saunders Island at the junction of Lama Passage and Seaforth Channel. A drying rock lies close SSE of this point. Several white buildings, with red roofs, and a radio tower, 51m high, stand in the vicinity of the light and are prominent.

**Caution.**—A submarine cable area, which may best be seen on the local chart, extends ESE across Lama Passage from a point located 0.4 mile S of the wharf at New Bella Bella to Denny Island.

**11.29** Kliktsoatli Harbor (52°09'N., 128°05'W.) (World Port Index No. 18905) indents the N side of Denny Island, on the E side of Lama Passage.

**Shearwater Island** (52°09'N., 128°05'W.) lies in the W part of the harbor and is surrounded by shoals. Clayton Passage, with a least depth of 15.1m, leads into the harbor. Wheelock Passage leads into the harbor between Shearwater Island and the E shore of the bay. Two shoal patches, with depths of 6.4m



Main left photo and the two insets are copyright Chris Mills; Main right photo copyright Mike Mitchell Dryad Point Light

and 8.7m, lie in the middle of the entrance to the bay, about 0.4 mile N of Shearwater Island. A buoy marks the S end of the shoal area extending from the W shore of Wheelock Passage.

Several mooring buoys are situated in the E part of the harbor and there are facilities for small craft, fishing boats, and yachts.

Anchorage can be taken, in a depth of 20m, mud, about 0.3 mile SE of Shearwater Island.

Vessels should enter through Clayton Passage favoring the W shore. When leaving through Wheelock Passage, vessels should keep about 0.2 mile off Klik Island.

## **Seaforth Channel**

**11.30 Seaforth Channel** (52°15'N., 128°15'W.) is the main passage connecting Return Channel. Johnson Channel, Cousins Inlet, Lama Passage, and Gunboat Passage with Milbanke Sound and the sea. The channel is about 13 miles long, has a least width of 1 mile, and is generally deep.

**Rithet Island** (52°13'N., 128°08'W.), 21m high, lies in the fairway, 1.8 miles NNW of Dryad Point. A shoal, with a depth of 2.1m, lies close N of the island.

**Ormidale Harbor** (52°12'N., 128°09'W.) lies 1.5 miles NW of Dryad Point, on the S side of the channel. It is protected from the N and E by Nevay Island and Thorburne Island which lie across the entrance. The main entrance of the harbor lies W of Nevay Island. It is 0.2 mile wide and has a least depth of 22m in the middle of the channel. Wellington Rock, with a depth of 5.2m, lies in the approach to the harbor, about 0.3 mile NNW of Nevay Island.

Anchorage can be obtained in a depth of 31m within the harbor, about 0.2 mile S of Nevay Island.

**Regatta Rocks** (52°13'N., 128°08'W.), two in number, lie 90m apart, about 0.5 mile NW of Rithet Island. These rocks are marked by a light and fronted by foul ground.

**Kynumpt Harbor** (52°13'N., 128°10'W.), entered close NW of Ormidale Harbor, has depths of 11 to 26m over a mud bottom.

Anchorage, by vessels up to 60m in length, can be taken in a depths 13 to 16m.

Dall Rocks, consisting of a series of rocky shoals with a dangerous wreck situated at the N end, lie about 0.5 mile WSW of Regatta Rocks. They are marked by a lighted buoy moored on the N side and a buoy moored on the S side.

**11.31 Nose Island** (52°14'N., 128°12'W.) lies on the N side of Seaforth Channel, 2.5 miles WNW of Regatta Rocks. This island is steep-to on the S side and a conspicuous tree, 61m high, stands on it.

Ferrie Island, 58m high and steep-to, lies 1 mile WNW of Nose Island.

Dearth Island is centered 1 mile NE of Ferrie Island. The area lying between Nose Island, Ferrie Island, and Dearth Island is encumbered by many islets and rocks. A shoal, with a depth of 5.5m, lies about 0.5 mile W of Nose Island and forms the closest danger to the channel.

**Idol Point** (52°14'N., 128°16'W.), marked by a light, is located on the S side of the channel, 2 miles WSW of Ferrie Island. Mount Gowllan, 317m high, stands 2 miles SE of this point and is conspicuous.

Hyndman Reefs lie on the N side of the channel, about 2 miles NE of Idol Point. A light is shown from the southernmost and highest rock lying on the reef. A group of small islands and islets lies about 0.8 mile W of these reefs.

**Cape Swaine** (52°14'N., 128°26'W.), formed by an island lying close to the shore, is located 6 miles W of Idol Point and forms the SW entrance point of the Seaforth Channel.

Robb Point, located 2.5 miles NE of Cape Swaine, is the SW extremity of an islet which lies close off the SW end of Ivory Island. This point is marked by a light and forms the NW entrance point of Seaforth Channel.

Cod Bank, with a least depth of 29m, lies 1 mile SW of Robb Point, in the center of the entrance to the channel. Depths as deep as 365m lie close N of this bank.

## **Passages and Channels joining Seaforth Channel**

**11.32 Gunboat Passage** (52°10'N., 128°00'W.) leads E from the E end of Seaforth Channel to the S end of Johnson Channel. This passage is narrow, intricate, and contains many rocks and kelp patches. It should not be attempted except by small vessels with local knowledge.

Troup Passage is entered on the N side of Seaforth Channel, N of Dryad Point. The passage leads NE for about 7 miles into Return Channel. The N entrance is encumbered by several islands, shoals, and drying rocks. It should not be attempted without local knowledge.

Raymond Passage, 9 miles long, is entered on the S side of Seaforth Channel, S of Nose Island. It is deep, clear of dangers, and connects Seaforth Channel with Queens Sound.

Spiller Channel is entered on the N side of Seaforth Channel, about 2 miles N of Ferrie Island. It extends 15 miles NNE and then divides into two arms. The N arm continues N for about 8 miles and the NE arm for about 11 miles. Due to incomplete surveys, local knowledge is recommended before entering the channel.

Return Channel, extending NE and E for about 10 miles, connects Seaforth Channel with the N end of Johnson Channel. The channel may be entered at its W end between Hyndman Reefs and Dearth Island, or between Nose Island and the W end of Chatfield Island.

Johnston Channel leads 8 miles S from the E end of Return Channel and connects with Fisher Channel. It has a least width of 0.4 mile and the shores rise within a short distance to heights of 300 to 760m.

Roscoe Inlet extends from the junction of Return Channel and Johnson Channel in a N and E direction for about 21 miles. There are depths of 70 to 180m in mid-channel and the shores in most parts are rugged and steep-to. There are no off-lying dangers. In ordinary weather, no particular difficulties are encountered in navigating this deep passage.

The tidal currents in Roscoe Inlet are negligible. In Return Channel and Johnson Channel, the tidal currents vary in direction and are weak, but they are dependent on wind conditions. Within Return Channel, in the vicinity of Donald Point (52°18'N., 128°06'W.), eddies sometimes occur off the point and near the rocks and islets.

## **Herbert Point to Cape Mark**

11.33 The Bardswell Group is an extensive group of low, wooded islands lying on the E side of the approach to Milbanke Sound. This group is bounded to the N by the Seaforth Channel and to the E by Raymond Passage. Calvert Island, Hunter Island, Campbell Island, and the islands of the Bardswell Group all lie on the E side of Queen Charlotte Sound. They are located in that order from S to N between the approaches to Fitz Hugh Sound and the entrance of Milbanke Sound. These islands along with numerous smaller islands form an irregular broken coastline that extends for about 43 miles NNW between Herbert Point and Cape Mark.

The islands of the Goose Group lie between 9 miles and 18 miles SSE of Cape Mark, on the W side of Queens Sound. These islands and their adjacent dangers lie the farthest to seaward and extend about 5 miles WSW of a line joining Herbert Point and Cape Mark.

Several navigable passages lead between the above named islands to various reaches of the inner passage.

Hakai Passage (51°43'N., 128°04'W.), entered 13 miles N of Herbert Point, leads ENE between Calvert Island and Hecate Island, on the S side, and Stirling Island and Nalau Island, on the N. Throughout this passage there is a deep fairway. It is about 1 mile wide and clear of dangers; however, there are numerous islets and dangers lying on both sides of the W entrance and on both sides of the passage itself.

The incoming tidal current flows E past **Adams Harbor** (51°41'N., 128°07'W.) and then NE through the fairway. The currents in both directions attain a velocity of 4 knots at springs.

11.34 South Pointers (51°40'N., 128°11'W.), a group of black rocks, rise up to 0.9m high and are the outermost dangers lying on the S side of the entrance to Hakai Passage. A rock, with a depth of 2.7m, lies about 0.5 mile NE of South Pointers. The channel leading between South Pointers and the **Surf Islands** (51°40'N., 128°09'W.) is deep and clear of dangers.

**Kwakshua Channel** (51°39'N., 128°00'W.) separates Hecate Island from Calvert Island. The N reach of this channel is encumbered with islets and rocks, but there are narrow fairways which are used by coasting vessels with local knowledge.

**Kildidt Sound** (51°46'N., 128°10'W.), entered about 4 miles N of the W entrance of Hakai Passage, has a main channel that is about 0.8 mile wide and trends in a N direction for about 9 miles. Within the sound, the shores are indented. The land on either side is generally low and contains many lakes which drain into the sound. Numerous islands, islets, and shoals fringe both shores.

**Airacobra Rock** (51°45'N., 128°13'W.), 14m high, is the largest of a small group of rocks lying in the entrance to Kildidt Sound.

North Pointers, consisting of a group of bare islets and rocks 0.3 to 11m high, lie about 2.5 miles SE of Airacobra Rock, in the S part of the entrance.

Blenheim Island, 72m high, is located 1.8 miles NNW of Airacobra Rock. Its coast consists of white cliffs, which are prominent from the S and W. A rock, awash, lies about 0.5 mile S of this island. Blenheim Island is the southwesternmost island of the Breadner Group which forms the N entrance of Kildidt Sound and the SE entrance of Queens Sound.

## **Queens Sound**

11.35 Queens Sound (51°56'N., 128°20'W.) is bounded on the E side by Hunter Island and on the W by the Goose Group. Numerous islands and rocks front the W side of Hunter Island, which is relatively low-lying.

The tallest mountain in the vicinity is **Mount Merritt** (51°59'N., 128°02'W.), which is 902m high. The head of the sound is encumbered by a maze of islands, but there are

navigable channels lying between them which lead to Hunter Channel and Raymond Passage.

The sound is entered from the S between Gosling Rocks, lying close S of the Goose Group on the W side, and the Breadner Group, lying on the E side.

**Spider Island** (51°51'N., 128°15'W.) has high, bold, and white cliffs at its NW end. Breadner Point, the W extremity of the island, is formed by a cliffy peninsula. The W side of the **Breadner Group** (51°48'N., 128°12'W.), including Spider Island, can be safely approached to within a distance of 0.2 mile.

A light is shown from an islet lying close off the NW side of Spider Island.

**Fulton Passage** (51°50'N., 128°16'W.), lying on the S side of Spider Island, is a deep channel with a least width of about 135m. It leads through the Breadner Group to Spider Anchorage.

**Spider Anchorage** (51°50'N., 128°13'W.) provides good anchorage, in a depth of 62m, about 0.3 mile W of the S extremity of Hurricane Island. Small vessels can anchor in depths of 10 to 21m about 0.1 mile NNE of the N extremity of Manley Island.

**Caution.**—Vessels entering Spider Anchorage through Fulton Passage should pass N of the rocky shoal, with a depth of 6.4m, lying in the middle of the fairway, and N and E of the rock, 0.6m high, located in the NW part of the anchorage. Vessels are cautioned that it is difficult to enter or leave the anchorage during bad weather because of the heavy seas encountered in the entrance.

**11.36 Superstition Ledge** (51°53'N., 128°15'W.), the NW extremity of which dries 4.3m, lies close off the S entrance to Cultus Sound, about 1.5 miles N of the N end of Spider Island. There are strong tide rips in the vicinity of this ledge and the sea breaks heavily over it at times.

**Cultus Sound** (51°54′N., 128°14′W.) widens within its entrance into a deep basin that extends about 1.5 miles E. The entrance is clear of dangers, except for shoal, with a depth of 6.4m, lying about 0.1 mile WSW of the S entrance point. A shoal, with a depth of 16.5m, lies in the middle of the entrance. Emergency anchorage can be obtained, in a depth of 48m, about 0.3 mile N of, or in depths of 16 to 26m, about 0.3 mile NE of, respectively, the **Goolden Islands** (51°54′N., 128°13′W.). Swell is encountered in both locations.

**Simonds Group** (51°57'N., 128°17'W.), centered about 6 miles N of Spider Island, consists of two large and many small islands.

**11.37 Purple Bluff** (51°56'N., 128°18'W.), the W extremity of the largest island of the Simonds Group, is conspicuous. It is 75m high and terminates in high, bold, and purple-tinted cliffs.

The tidal currents attain a rate of 2 to 3 knots about 1.8 miles NW of Purple Bluff.

**Caution.**—The W side of the Simonds Group should be given a berth of at least 0.5 mile.

The **Goose Group** (51°56′N., 128°28′W.) consists of four principal, wooded islands that are connected to each other at LW. Goose Island, the northernmost and largest island, is 65m high and has some high, white cliffs near its NE end.

**Gosling Rocks** (51°52'N., 128°28'W.) lie on an area of foul ground that extends up to about 3.3 miles SSW from the Goose Group.

Currie Islet, 8.2m high and bare, lies at the S end of Gosling Rocks and about 4.5 miles S of the S end of Goose Island. A light is shown from this islet. The southernmost danger is formed by a rock, 4.6m high, which lies about 0.4 mile SW of **Currie Islet** (51°51'N., 128°27'W.).

Anchorage can be taken, in a depth of 22m, within **Goose Island Anchorage** (51°56′N., 128°26′W.). The approach to the anchorage should be made in mid-channel and on a course of 250° until the desired depth is obtained.

Caution.—The E side of the Goose Group is clear of dangers beyond a distance of 0.3 mile offshore. The W side of the group is fringed with foul ground. The outermost dangers are Vivian Rock, which dries 4.6m, lying about 2.3 miles W of the S end of Goose Island; a shoal, with a depth of 4.1m and marked by kelp, lying about 0.2 mile SSW of Vivian Rock; a shoal, with a depth of 9.1m, lying about 4 miles NNE of Vivian Rock; Bourke Rock, with a depth of 5.5m, lying 1.8 miles NW of the N end of Goose Island and over which the sea occasionally breaks; a shoal, with a depth of 11m, lying about 0.3 mile S of Bourke Rock; and a similar shoal lying about 0.4 mile farther S

The N end of the sound is encumbered by several groups of islands through which lead several routes.

**11.38 McMullin Group** (52°03'N., 128°25'W.), located 2 miles N of Goose Island, consists of two main islands and numerous islets, rocks, and shoals.

**Prince Group** (52°00'N., 128°15'W.) is a chain of islands lying close NNE of the Simonds Group.

**Admiral Group** (52°01'N., 128°16'W.) consists of a group of islands lying close together, NW of the Prince Group.

**Tribal Group** (52°02'N., 128°19'W.) lies at the head of the sound, NW of the Admiral Group.

Hunter Channel leads from the NE side of the sound in a N and NE direction to Lama Passage. The fairway is deep throughout. The channel may be entered from the sound via Lillooet Passage or Safe Passage.

Lillooet Passage, the shorter but narrower route, is deep and leads between the Simonds Group and the Prince Group. This passage affords the shortest and most direct entry into Hunter Channel from Queens Sound, but because of the dangers in the general vicinity, it is recommended for use only during daylight hours.

Safe Passage leads between the Prince Group and the Admiral Group. It affords an alternative route by rounding the Prince Group and entering Hunter Channel to the SE, as well as a route to Raymond Passage, to the N.

Raymond Passage connects the sound to Seaforth Channel. This passage can be entered from the S by four routes leading from the head of Queens Sound.

Tide Rip Passage, lying between the Admiral Group and the SE end of the Tribal Group, and the passage leading between the largest islands of Tribal Group are not recommended without local knowledge. Safe Passage and Codfish Passage, the most direct routes, may be used.

Codfish Passage, the recommended route, leads W of the Tribal Group. It is deep and clear of dangers throughout.

11.39 Golby Passage (52°02'N., 128°26'W.) leads from the NW side of Queens Sound to the open sea and separates the Goose Group from the McMullin Group. It is deep and the fairway is about 0.8 mile wide. However, this passage should only be attempted in clear weather and during daylight hours because of the unmarked dangers lying in the vicinity.

Peveril Rock, 2.1m high, lies about 1.5 miles NE of the N end of Goose Island, on the N side of the E end of the passage. Another rock, with a depth of less than 1.8m, lies about 0.5 mile WSW of this rock.

Weyburn Rock, with a depth of less than 1.8m, lies on the S side of the passage near the N extremity of the foul ground extending N from Goose Island.

The W approach to Golby Passage leads between Bourke Rock, previously described in paragraph 11.37, and Tingley Rock, which dries 3m, about 1.5 miles NNW. The depths lying among the dangers located N and E of Tingley Rock are very irregular and the area should be avoided.

**Directions.**—Safe Passage should be approached with the SE extremity of Jones Island in line with the islet, 300m high, lying about 0.2 mile NE of it, bearing 034°. When within 0.5 mile of Jones Island, vessels should steer E to pass Jones Island and the islet at a distance of 0.15 mile.

The NE side of the Admiral Group should then be rounded at a distance of 0.15 mile. The course should be then set to pass midway between Pullen Island and the NE shore of Athabaskan Island.

When Pullen Island is abeam, the course should be altered to pass about 0.1 mile E of the rock, 4.6m high, lying at the S end of Brown Narrows. The W shore of the latter should then be favored. When clear of the N end of Creery Islands, a mid-channel course should be followed into Raymond Passage.

Vessels wishing to enter by Codfish Passage should make for a position located 0.5 mile E of Peveril Rock where the NW extremity of Miles Island should be brought to bear 026°. This bearing leads between the dangers off the NW side of Huron Island and the rock, which dries 1m, lying at the SE extremity of the shoal ground extending from Guano Rocks.

The W side of the approach to Codfish Passage, N of Guano Rocks, is bounded by numerous detached rocks, above and below-water; however, there are no dangers lying E of a line between Guano Rocks and Alleyne Island, 2 miles NNE.

When the highest of the Guano Rocks is abeam, vessels should alter course for the middle of Codfish Passage and pass between Miles Island and Alleyne Island. They should then follow a mid-channel course through the passage and into Raymond Passage.

**Caution.**—Because of the featureless nature of the countryside and the mass of islands in this vicinity, vessels should be certain of their positions before proceeding to enter any of the passages.

11.40 Fingal Island (52°05'N., 128°27'W.), 40m high and wooded, lies NW of the McMullin Group, about 4.5 miles NNW of the N end of Goose Island. Ledges of above and below-water rocks extend up to 1 mile SW of this island. The passage lying between the island and the McMullin Group is obstructed by a shoal area, with rocks and depths of less than 1.8m. Marshall Reef, which dries, lies 1.5 miles SW of the island.

Limit Island, 75m high and wooded, lies 2.5 miles NNW of Fingal Island. Several small islets and rocks extend up to 0.3 mile SW from the SW end of this island.

Rempstone Rocks, consisting of above and below-water rocks, lies between 1 mile and 2.3 miles W of Limit Island. Numerous detached patches, with depths of less than 10m, lie up to 2 miles S of Rempstone Rocks.

Cape Mark (52°09'N., 128°32'W.), marked by a light, forms the S extremity of a small island. This island lies at the SW end of the Bardswell Group and about 10 miles NNW of the N end of Goose Island. The islands in the vicinity of the cape are wooded and the tops of the trees are about 45m high. Providence Rock, with a depth of less than 1.8m, and Cheeseman Rock, over which the sea breaks, lie 0.8 mile W and 0.8 mile NNW, respectively, of the cape. Hope Rocks, two in number, lie about 0.8 mile S of the cape. These rocks are awash and an area of foul ground lies between them.